

E.7 Service Performance Response

The following tables (Table E-8.1 for Release A and Table E-8.2 for Release B) provide subsystem target response time budgets for each service type pertinent to the Release A & B design. The response time budgets are mapped to entire subsystems and are not broken down to specific CSCI/HWCI components within subsystems. N/A (not applicable) means that there is no activity to be performed by a subsystem with regard to processing the service type in question. Notice that Guide Search and Document Search service types are applied to both Data Management and Data Server subsystems individually since they provide separate services for Guide and Document searches that are not reliant on one another.

*Response time budgets are from initiation of query to start of display, exclusive of user environment and network delay. Resolution is currently provided at the Subsystem level. Future updates will provide testable constraints at the CI level where those constraints are meaningful.

A/B Service Performance Response Time Budgets by Subsystem
(Originally Table E-8 in Appendix E of Release B DID 304 CDR 304-CD-005-002)

Table E-8.1. Release A Service Performance Response Time Budgets by Subsystem (1 of 2)

| Service | Release | Number of Operations per Hour | Specific Operation | Total Response Time Requirement * | DM R/T Requirement * | Data Server R/T Requirement * | CSS R/T Requirement * | ISS R/T Requirement * |
|--|---------|-------------------------------|--|-----------------------------------|----------------------|-------------------------------|-----------------------|-----------------------|
| Log-on and Authorisation (DM specific) | A | 100 | Account confirmation and authorization | 13 seconds | 4 seconds | N/A | 8.5 seconds | 0.5 seconds |
| Directory Search (DM specific) | A | 80 | Search by single keyword attribute | 8 seconds | 7.4 seconds | N/A | 0.1 seconds | 0.5 seconds |
| | A | | Search by multiple keyword and time or space range check | 13 seconds | 12.4 seconds | N/A | 0.1 seconds | 0.5 seconds |
| Guide Search (DM specific) | A | 40 | Search for document by keyword | 8 seconds | 7.4 seconds | N/A | 0.1 seconds | 0.5 seconds |
| Guide Search (Data Server specific) | A | 40 | Search for document by keyword | 8 seconds | N/A | 7.4 seconds | 0.1 seconds | 0.5 seconds |

A/B Service Performance Response Time Budgets by Subsystem
(Originally Table E-8 in Appendix E of Release B DID 304 CDR 304-CD-005-002)

Table E-8.1. Release A Service Performance Response Time Budgets by Subsystem (2 of 2)

| Service | Release | Number of Operations per Hour | Specific Operation | Total Response Time Requirement * | DM R/T Requirement * | Data Server R/T Requirement * | CSS R/T Requirement * | ISS R/T Requirement * |
|--|---------|-------------------------------|---|-----------------------------------|----------------------|-------------------------------|-----------------------|-----------------------|
| Inventory Search | A | 120 | Search one instrument by multiple keyword attribute w/time or space range check (1 DAAC) | 8 seconds | 2.5 seconds | 4.9 seconds | 0.1 seconds | 0.5 seconds |
| | A | | Search multiple instruments by multiple keyword attributes w/time or space range check (1 DAAC) | 18 seconds | 2.5 seconds | 14.9 seconds | 0.1 seconds | 0.5 seconds |
| Browse (for data selection) | A | 50 | Retrieve and begin to display standard pre-computed browse product | 58 seconds | 8 seconds | 49.4 seconds | 0.1 seconds | 0.5 seconds |
| Document Search (DM specific) | A | 10 | Search 1000 document pages by keyword | 3 seconds | 2.4 seconds | N/A | 0.1 seconds | 0.5 seconds |
| Document Search (Data Server specific) | A | 10 | Search 1000 document pages by keyword | 3 seconds | N/A | 2.4 seconds | 0.1 seconds | 0.5 seconds |
| Ordering Services | A | 25 | Local DAAC order submission and confirmation | 13 seconds | 2.5 seconds | 9.9 seconds | 0.1 seconds | 0.5 seconds |

A/B Service Performance Response Time Budgets by Subsystem
(Originally Table E-8 in Appendix E of Release B DID 304 CDR 304-CD-005-002)

Table E-8.2. Release B Service Performance Response Time Budgets by Subsystem (1 of 3)

| Service | Release | Number of Operations per Hour | Specific Operation | Total Response Time Requirement * | DM R/T Requirement * | Data Server R/T Requirement * | CSS R/T Requirement * | ISS R/T Requirement * |
|---|---------|-------------------------------|--|-----------------------------------|----------------------|-------------------------------|-----------------------|-----------------------|
| Log-on and Authorisation (CIDM specific) | B | 100 | Account confirmation and authorization | 13 seconds | 4 seconds | N/A | 8.5 seconds | 0.5 seconds |
| Log-on and Authorization (Data Server specific) | B | 100 | Account confirmation and authorization | 13 seconds | N/A | 4 seconds | 8.5 seconds | 0.5 seconds |
| Directory Search (CIDM specific) | B | 80 | Search by single keyword attribute | 8 seconds | 7.4 seconds | N/A | 0.1 seconds | 0.5 seconds |
| | B | | Search by multiple keyword and time or space range check | 13 seconds | 12.4 seconds | N/A | 0.1 seconds | 0.5 seconds |
| Directory Search (Data Server specific) | B | 80 | Search by single keyword attribute | 8 seconds | N/A | 7.4 seconds | 0.1 seconds | 0.5 seconds |
| | B | | Search by multiple keyword and time or space range check | 13 seconds | N/A | 12.4 seconds | 0.1 seconds | 0.5 seconds |
| Guide Search | B | 40 | Search for document by keyword | 8 seconds | 2.5 seconds | 4.9 seconds | 0.1 seconds | 0.5 seconds |

A/B Service Performance Response Time Budgets by Subsystem
(Originally Table E-8 in Appendix E of Release B DID 304 CDR 304-CD-005-002)

Table E-8.2. Release B Service Performance Response Time Budgets by Subsystem (2 of 3)

| Service | Release | Number of Operations per Hour | Specific Operation | Total Response Time Requirement * | CIDM R/T Requirement | Data Server R/T Requirement | CSS R/T Requirement | ISS R/T Requirement |
|-----------------------------------|---------|-------------------------------|---|-----------------------------------|----------------------|-----------------------------|---------------------|---------------------|
| Inventory Search | B | 120 | Search one instrument by multiple keyword attribute w/time or space range check (1 DAAC) | 8 seconds | 2.5 seconds | 4.9 seconds | 0.1 seconds | 0.5 seconds |
| | B | | Search multiple instruments by multiple keyword attributes w/time or space range check (1 DAAC) | 18 seconds | 2.5 seconds | 14.9 seconds | 0.1 seconds | 0.5 seconds |
| | B | | Multiple DAAC inventory search by keyword attributes and time and/or space range check | 58 seconds | 42.5 seconds | 14.9 seconds | 0.1 seconds | 0.5 seconds |
| Status Check (account or request) | B | 60 | Status of pending order or Data Acquisition Request | 13 seconds | 2.5 seconds | 9.9 seconds | .1 seconds | 0.5 seconds |
| | B | | Account status retrieval | 13 seconds | 2.5 seconds | 9.9 seconds | .1 seconds | 0.5 seconds |

A/B Service Performance Response Time Budgets by Subsystem
(Originally Table E-8 in Appendix E of Release B DID 304 CDR 304-CD-005-002)

Table E-8.2. Release B Service Performance Response Time Budgets by Subsystem (3 of 3)

| Service | Release | Number of Operations per Hour | Specific Operation | Total Response Time Requirement * | CIDM R/T Requirement | Data Server R/T Requirement | CSS R/T Requirement | ISS R/T Requirement |
|--|---------|-------------------------------|--|-----------------------------------|----------------------|-----------------------------|---------------------|---------------------|
| Browse (for data selection) | B | 50 | Retrieve and begin to display standard pre-computed browse product | 58 seconds | 8 seconds | 49.4 seconds | 0.1 seconds | 0.5 seconds |
| Document Search (CIDM specific) | B | 10 | Search 1000 document pages by keyword | 3 seconds | 2.4 seconds | N/A | 0.1 seconds | 0.5 seconds |
| Document Search (Data Server specific) | B | 10 | Search 1000 document pages by keyword | 3 seconds | N/A | 2.4 seconds | 0.1 seconds | 0.5 seconds |
| Ordering Services | B | 25 | Local DAAC order submission and confirmation | 13 seconds | 2.5 seconds | 9.9 seconds | 0.1 seconds | 0.5 seconds |
| | B | | Remote DAAC order submission and confirmation | 38 seconds | 5 seconds | 32.4 seconds | 0.1 seconds | 0.5 seconds |
| | B | | Order cost estimate | 13 seconds | 2.5 seconds | 9.9 seconds | 0.1 seconds | 0.5 seconds |